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78L18 Three-terminal positive voltage regulator

SOT-89 Encapsulate Three Terminal Voltage Regulator

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客户确认：

公司签章：

部门	工程部	品保部	采购部
签名			
日期			

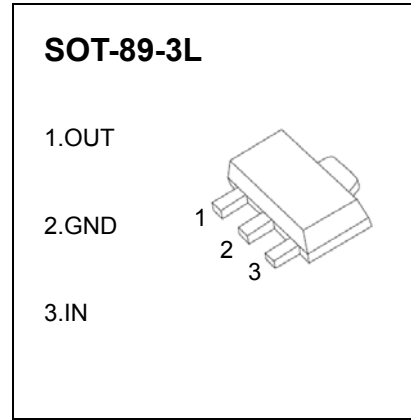


SOT-89 Encapsulate Three Terminal Voltage Regulator

78L18 Three-terminal positive voltage regulator

FEATURES

- Maximum output current
 I_{OM} : 0.1 A
- Output voltage
 V_O : 18 V
- Continuous total dissipation
 P_D : 0.5 W



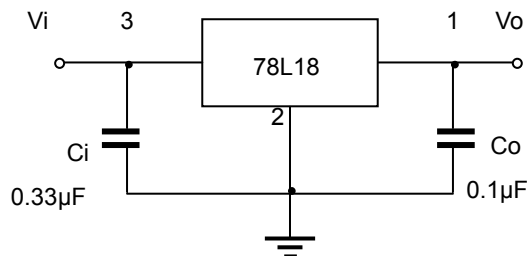
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_i	35	V
Operating Junction Temperature Range	T_{OPR}	0~+150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=26V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

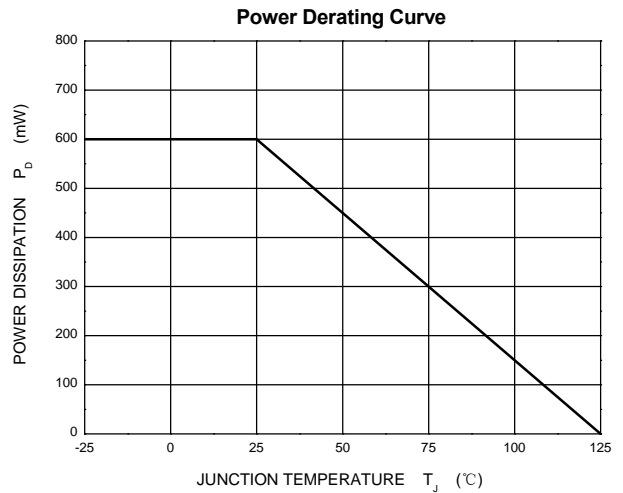
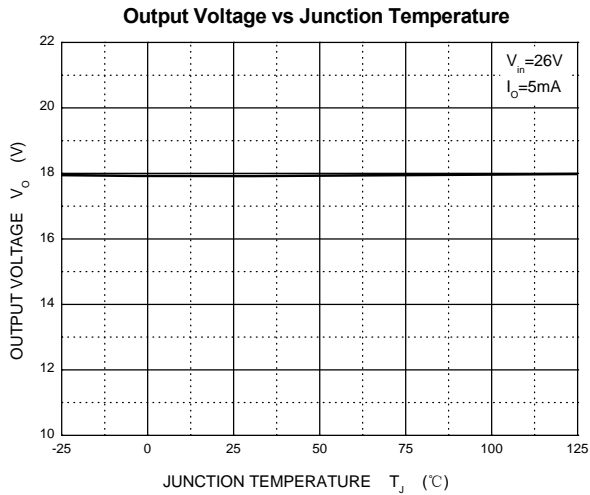
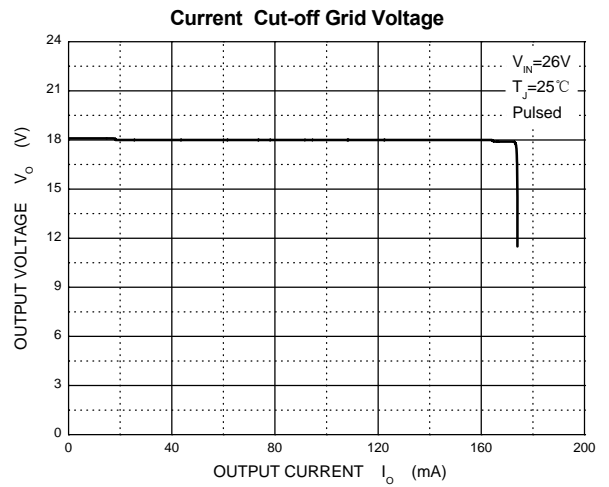
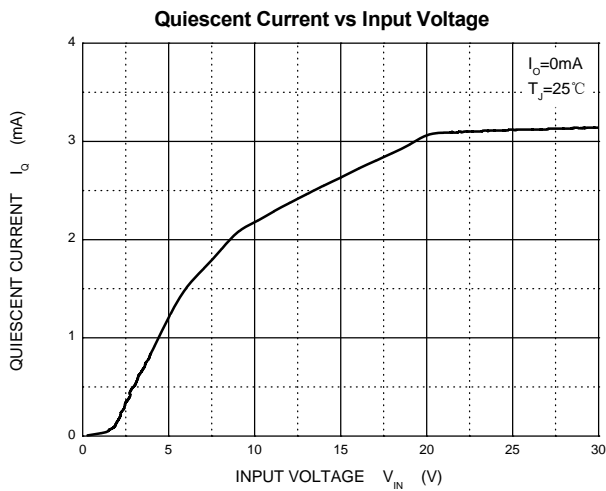
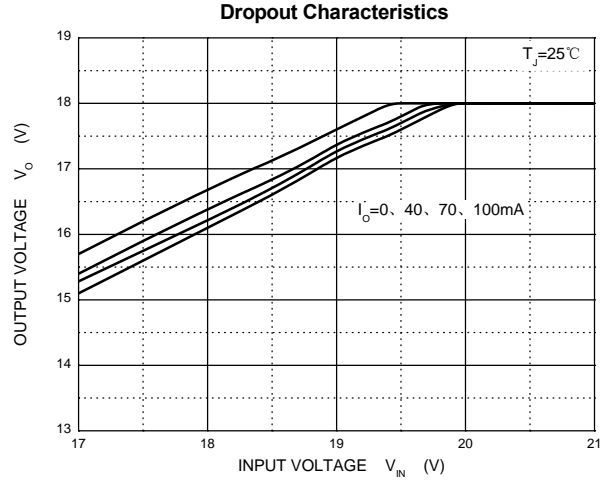
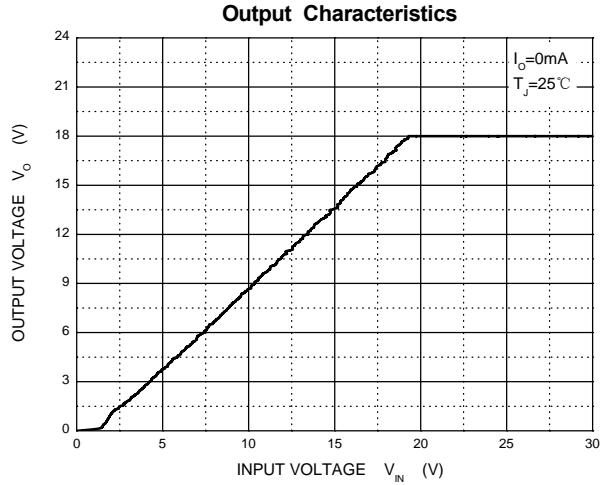
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output voltage	V_o	$20.5V \leq V_i \leq 33V, I_o=1mA-40mA$	25°C	17.3	18	18.7	V
		$V_i=26V, I_o=1mA-70mA$	0-125°C	17.1	18	18.9	V
				17.1	18	18.9	V
Load Regulation	ΔV_o	$I_o=1mA-100mA, V_i=26V$	25°C		27	180	mV
		$I_o=1mA-40mA, V_i=26V$	25°C		19	90	mV
Line regulation	ΔV_o	$20.5V \leq V_i \leq 33V, I_o=40mA$	25°C		70	360	mV
		$22V \leq V_i \leq 33V, I_o=40mA$	25°C		64	300	mV
Quiescent Current	I_q		25°C		4.7	6.5	mA
Quiescent Current Change	ΔI_q	$22V \leq V_i \leq 33V, I_o=40mA$	0-125°C			1.5	mA
	ΔI_q	$1mA \leq I_o \leq 40mA, V_i=26V$	0-125°C			0.1	mA
Output Noise Voltage	V_N	10Hz ≤ f ≤ 100KHz	25°C		89	μV	
Ripple Rejection	RR	$21.5V \leq V_i \leq 31.5V, f=120Hz$	0-125°C	32	36	dB	
Dropout Voltage	V_d	$T_j=25°C$	25°C		1.7	V	

TYPICAL APPLICATION

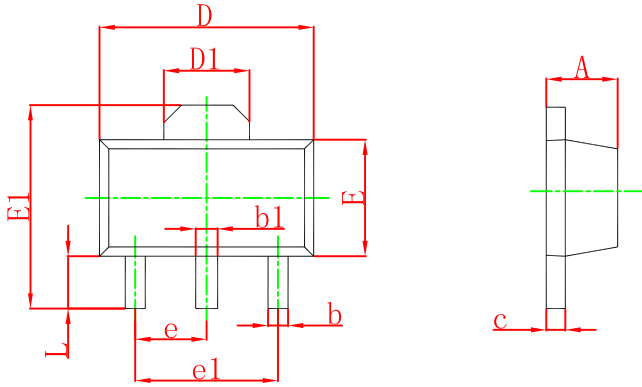


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics

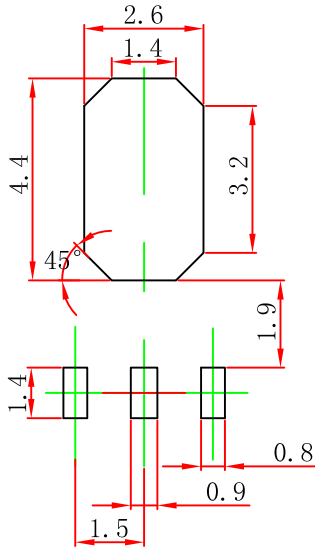


SOT-89-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

SOT-89-3L Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.